

What makes South Dakota State University (SDSU) Ice Cream special?

South Dakota State University began producing ice cream as a part of coursework in dairy science about 100 years ago. The first photographs of ice cream equipment in use date back to 1910. Throughout the years there have been several changes in the technology of ice cream manufacture and these changes have been embraced in the manufacture of ice cream at SDSU. Originally ice cream was manufactured in small batches and then placed in a freezer to slowly harden. This resulted in a product with a very coarse, icy texture resulting from the development of very large individual ice crystals within the product.

Advances in manufacturing equipment allowed ice cream to be produced on a more continuous basis as early as the late 1930's. Further advances in refrigeration technology have allowed for more effective cooling of the cream mixture to improve the texture so that it is very smooth, with very uniform, small ice crystals. The newly remodeled SDSU Dairy plant has incorporated and installed new freezers that have resulted in product with very desirable frozen texture characteristics.

In addition to the freezing technology, the ingredients that are utilized in an ice cream have a tremendous impact on the finished quality of the ice cream from both a flavor and texture standpoint. The SDSU Dairy Plant utilizes freshly obtained locally sourced dairy ingredients. The milk and cream are sourced from the SDSU Dairy Research farm and are made into ice cream within 24 to 48 hours. There are minimum standards established by both state and federal regulators related to the minimum quantity of milk fat and milk solids-not-fat that must be present in any frozen dairy dessert. SDSU Ice Cream exceeds these minimums by nearly 25%, adding to the smoothness and improved flavor of the ice cream. The sweetener used in the ice cream is almost exclusively sucrose which provides a very clean flavor profile without any syrupy characteristics as may often be encountered in product made with elevated levels of high fructose corn syrup or corn syrup solids. The use of sucrose increases the input costs but produces a more desirable product.

When it comes to other flavors, SDSU produces about 60 different flavors throughout a year. These flavors are sourced so that the largest proportion of the flavors are all natural. When sourcing vanilla, the number one flavor manufactured, a fully natural vanilla extract from Madagascar was chosen instead of choosing lower cost alternatives that had been artificially developed. Many of the other flavors are treated with the same consideration for keeping the product as natural as possible, using local ingredients where possible. The result is a product with a shorter ingredient statement on the label that provides wonderful texture and flavor in

South Dakota's only locally produced hard pack ice cream. SDSU Ice Cream is available by the cone or by the container at select local outlets.